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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/998,350

DATE: 12/23/2002 P.6

TIME: 14:13:23

Input Set : A:\PTO.VSK.txt

Output Set : N:\CRF4\12232002\I998350.raw

```

3 <110> APPLICANT: Rollet, Peter P
4         Long, Ya-Lin
5         Long, Feng-Di T
6         King, Elcter C
7         Yang, Dajun
8 <120> TITLE OF INVENTION: PEDOX-STABLE, NON-PHOSPHORYLATED CYCLIC PEPTIDE INHIBITORS
OF SH2 DOMAIN
9         BINDING TO TARGET PROTEIN, CONJUGATES THEREOF, COMPOSITIONS AND METHODS OF
10        SYNTHESIS AND USE
11 <130> PILE REFERENCE: 1146-3
12 <140> CURRENT APPLICATION NUMBER: 09/998,350
C--> 16 <141> CURRENT FILING DATE: 2002-12-09
17 <150> PRIOR APPLICATION NUMBER: PCT/US00/15201
18 <151> PRIOR FILING DATE: 2000-06-02
19 <160> PRIOR APPLICATION NUMBER: 60/137,187
20 <161> PRIOR FILING DATE: 1999-06-02
21 <200> NUMBER OF SEQ ID NOS: 19
22 <210> SOFTWARE: PatentIn version 3.1
23 <211> SEQ ID NO: 1
24 <212> LENGTH: 9
25 <213> TYPE: PRT
26 <214> ORGANISM: Artificial Sequence
27 <215> FEATURE:
28 <216> OTHER INFORMATION: Synthetic
29 <217> FEATURE:
30 <218> NAME KEY: misc_feature
31 <219> LOCATION: 1..(1)
32 <220> OTHER INFORMATION: Xaa = Glu, which is gamma-carboxy-L-glutamic acid
33 <221> FEATURE:
34 <222> NAME KEY: misc_feature
35 <223> LOCATION: 1..(9)
36 <224> OTHER INFORMATION: Tyr at position 9 is an amide, i.e. C(C)NH
37 <225> FEATURE:
38 <226> NAME KEY: misc_feature
39 <227> LOCATION: 1..(9)
40 <228> OTHER INFORMATION: Xaa (Glu) and Tyr at position 9 are bridged together, making
this
41        peptide cyclic
42 <400> SEQUENCE: 1
W--> 57 Xaa Leu Tyr Glu Asn Val Gly Met Tyr
58 1 5
59 <210> SEQ ID NO: 2
60 <211> LENGTH: 9
61 <212> TYPE: PRT

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64 <213> ORGANISM: Artificial Sequence

RAW SEQUENCE LISTING

DATE: 12/23/2002

PATENT APPLICATION: US/09/998,350

TIME: 14:15:23

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\12232002\I998350.raw

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66 (220) FEATURE:
67 (221) OTHER INFORMATION: Synthetic
68 (222) FEATURE:
69 (223) NAME KEY: misc_feature
70 (224) LOCATION: (1)..(1)
71 (225) OTHER INFORMATION: Xaa at position 1 is alpha-amino-adipic acid (Adi)
72 (226) FEATURE:
73 (227) NAME KEY: misc_feature
74 (228) LOCATION: (4)..(4)
75 (229) OTHER INFORMATION: Xaa at position 4 is Glu or Adi
81 (230) FEATURE:
82 (231) NAME KEY: misc_feature
83 (232) LOCATION: (9)..(9)
84 (233) OTHER INFORMATION: Tyr at position 9 is an amide, i.e., C(O)NH
85 (234) FEATURE:
86 (235) NAME KEY: misc_feature
87 (236) LOCATION: (1)..(9)
88 (237) OTHER INFORMATION: Xaa at position 1 and Tyr at position 9 are bridged together,
mak
91 (238) THIS peptide cyclic
92 (239) SEQUENCE: 2

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W--> 96 Xaa Leu Tyr Xaa Asn Val Gly Met Tyr

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97 (1) 5
98 (210) SEQ ID NO: 3
99 (211) LENGTH: 9
100 (212) TYPE: PR1
101 (213) ORGANISM: Artificial Sequence
102 (214) FEATURE:
103 (215) OTHER INFORMATION: Synthetic
104 (216) FEATURE:
105 (217) NAME KEY: misc_feature
106 (218) LOCATION: (1)..(1)
107 (219) OTHER INFORMATION: Xaa is any amino acid other than Glu
108 (220) FEATURE:
109 (221) NAME KEY: misc_feature
110 (222) LOCATION: (9)..(9)
111 (223) OTHER INFORMATION: Tyr at position 9 is an amide, i.e., C(O)NH
112 (224) FEATURE:
113 (225) NAME KEY: misc_feature
114 (226) LOCATION: (1)..(9)
115 (227) OTHER INFORMATION: Xaa and Tyr at position 9 are bridged together, making this
pepti
116 (238) THIS peptide cyclic
117 (239) SEQUENCE: 3

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W--> 129 Xaa Leu Tyr Glu Asn Val Gly Met Tyr

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128 (1) 5
129 (210) SEQ ID NO: 4
130 (211) LENGTH: 10
131 (212) TYPE: PR1
132 (213) ORGANISM: Artificial Sequence
133 (214) FEATURE:

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/998,350

DATE: 12/23/2002

TIME: 14:13:23

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\12232002\I998350.raw

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149 <223> OTHER INFORMATION: Synthetic
141 <220> FEATURE:
142 <221> NAME/KEY: misc_feature
143 <222> LOCATION: (1)..(3)
144 <223> OTHER INFORMATION: Xaa = Gla, which is gamma-carboxy-L-glutamic acid
145 <220> FEATURE:
146 <221> NAME/KEY: misc_feature
147 <222> LOCATION: (10)..(10)
148 <223> OTHER INFORMATION: Cys at position 10 is an amide, i.e., C(O)NH
149 <220> FEATURE:
150 <221> NAME/KEY: misc_feature
151 <222> LOCATION: (1)..(10)
152 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli
153 <220> FEATURE:
154 <221> NAME/KEY: misc_feature
155 <222> LOCATION: (1)..(10)
156 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli
157 <220> FEATURE:
158 <221> NAME/KEY: misc_feature
159 <222> LOCATION: (1)..(10)
160 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli
W--> 162 Xaa Leu Tyr Glu Asn Val Gly Met Tyr Cys
163 <220> FEATURE:
164 <221> NAME/KEY: misc_feature
165 <222> LOCATION: (1)..(10)
166 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli
167 <220> FEATURE:
168 <221> NAME/KEY: misc_feature
169 <222> LOCATION: (1)..(10)
170 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli
W--> 182 Xaa Leu Tyr Glu Asn Val Gly Met Tyr Cys
183 <220> FEATURE:
184 <221> NAME/KEY: misc_feature
185 <222> LOCATION: (1)..(10)
186 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli
187 <220> FEATURE:
188 <221> NAME/KEY: misc_feature
189 <222> LOCATION: (1)..(10)
190 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli
191 <220> FEATURE:
192 <221> NAME/KEY: misc_feature
193 <222> LOCATION: (1)..(10)
194 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli
195 <220> FEATURE:
196 <221> NAME/KEY: misc_feature
197 <222> LOCATION: (1)..(10)
198 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli
199 <220> FEATURE:
200 <221> NAME/KEY: misc_feature
201 <222> LOCATION: (1)..(10)
202 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli
203 <220> FEATURE:
204 <221> NAME/KEY: misc_feature
205 <222> LOCATION: (1)..(10)
206 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli
207 <220> FEATURE:
208 <221> NAME/KEY: misc_feature
209 <222> LOCATION: (1)..(10)
210 <223> OTHER INFORMATION: Xaa (Gla) and Cys are bridged together, making this peptide
cycli

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/998,350

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Input Set : A:\PTO.VSK.txt

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211 4223 OTHER INFORMATION: Glu at position 4 is modified to Glu(OtBu), which is tert-butoxy/-

212 4.200 FEATURE:

213 4.201 NAME/KEY: misc_feature

214 4.202 LOCATION: (5)..(5)

215 4224 OTHER INFORMATION: Asn at position 5 is modified to Asn(Trt), which is is trytyl-asp

216 4.200 FEATURE:

217 4.201 NAME/KEY: misc_feature

218 4.202 LOCATION: (9)..(9)

219 4225 OTHER INFORMATION: Tyr at position 9 is modified to Tyr(tBu), which is tert-butyl-tyr

220 4.200 FEATURE:

221 4.201 NAME/KEY: misc_feature

222 4.202 LOCATION: (10)..(10)

223 4226 OTHER INFORMATION: Cys at position 10 is modified to Cys(Trt), which is trytyl-cyste

224 4.200 FEATURE: and Cys(Trt) is connected to a resin

225 4227 SEQUENCE: 6

W--> 238 Xaa Leu Tyr Glu Asn Val Gly Met Tyr Cys

239 4.100 SEQ ID NO: 10

240 4.101 LENGTH: 9

241 4.102 TYPE: PRT

242 4.103 ORGANISM: Artificial Sequence

243 4.200 FEATURE:

244 4.201 OTHER INFORMATION: Synthetic

245 4.200 FEATURE:

246 4.201 NAME/KEY: misc_feature

247 4.202 LOCATION: (1)..(1)

248 4.203 OTHER INFORMATION: Xaa = Glu, which is gamma-carboxy-L-glutamic acid

249 4.200 FEATURE:

250 4.201 NAME/KEY: misc_feature

251 4.202 LOCATION: (1)..(1)

252 4.203 OTHER INFORMATION: Xaa has a ClCH2C(O)- group attached

253 4.200 FEATURE:

254 4.201 NAME/KEY: misc_feature

255 4.202 LOCATION: (9)..(9)

256 4.203 OTHER INFORMATION: Tyr at position 9 has a -C(CH2SH)C(O)NH2 group attached

257 4228 SEQUENCE: 7

W--> 270 Xaa Leu Tyr Glu Asn Val Gly Met Tyr

271 4.100 SEQ ID NO: 8

272 4.101 LENGTH: 18

273 4.102 TYPE: PRT

274 4.103 ORGANISM: Artificial Sequence

275 4.200 FEATURE:

276 4.201 OTHER INFORMATION: Synthetic

277 4.200 FEATURE:

278 4.201 NAME/KEY: misc feature

RAW SEQUENCE LISTING

DATE: 12/23/2002

PATENT APPLICATION: US/09/998,350

TIME: 14:13:23

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\12232002\I998350.raw

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294 <222> LOCATION: (1)..(1)
295 <223> OTHER INFORMATION: Xaa = Adi, which is alpha-amino-adipic acid
296 <220> FEATURE:
297 <221> NAME KEY: rnc_feature
298 <222> LOCATION: (1)..(1)
299 <223> OTHER INFORMATION: Xaa has a CH2CO- group attached
300 <220> FEATURE:
301 <221> NAME KEY: rnc_feature
302 <222> LOCATION: (10)..(10)
303 <223> OTHER INFORMATION: Cys is an amide, i.e., C(O)NH
304 <220> FEATURE:
305 <221> NAME KEY: rnc_feature
306 <222> LOCATION: (1)..(10)
307 <223> OTHER INFORMATION: Xaa (Adi) and Cys are bridged together, making this
cycli
308 <100> SEQUENCE: 8
W--> 309 Xaa Leu Tyr Glu Asn Val Gly Met Tyr Cys
309 1 5 10
310 <101> SEQ ID NO: 9
311 <111> LENGTH: 10
312 <112> TYPE: PRT
313 <133> ORGANISM: Artificial Sequence
314 <220> FEATURE:
315 <221> OTHER INFORMATION: Synthetic
316 <220> FEATURE:
317 <221> NAME KEY: rnc_feature
318 <222> LOCATION: (1)..(1)
319 <223> OTHER INFORMATION: At position 1, Xaa = Adi, which is alpha-amino-adipic acid
320 <220> FEATURE:
321 <221> NAME KEY: rnc_feature
322 <222> LOCATION: (4)..(4)
323 <223> OTHER INFORMATION: At position 4, Xaa = Adi, which is alpha-amino-adipic acid
324 <220> FEATURE:
325 <221> NAME KEY: rnc_feature
326 <222> LOCATION: (10)..(10)
327 <223> OTHER INFORMATION: Cys is an amide, i.e., C(O)NH
328 <220> FEATURE:
329 <221> NAME KEY: rnc_feature
330 <222> LOCATION: (1)..(10)
331 <223> OTHER INFORMATION: Xaa (Adi) at position 1 and Cys are bridged together, making
this
332 peptide cyclic
333 <100> SEQUENCE: 9
W--> 348 Xaa Leu Tyr Xaa Asn Val Gly Met Tyr Cys
348 1 5 10
349 <101> SEQ ID NO: 10
350 <111> LENGTH: 10
351 <112> TYPE: PRT
352 <133> ORGANISM: Artificial Sequence
353 <220> FEATURE:

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/998,350

DATE: 12/23/2002
TIME: 14:13:24

Input Set : A:\PTO.VSK.txt
Output Set: N:\CRF4\12232002\I998350.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1
Seq#:2; Xaa Pos. 1,4
Seq#:3; Xaa Pos. 1
Seq#:4; Xaa Pos. 1
Seq#:5; Xaa Pos. 1
Seq#:6; Xaa Pos. 1
Seq#:7; Xaa Pos. 1
Seq#:8; Xaa Pos. 1
Seq#:9; Xaa Pos. 1,4
Seq#:10; Xaa Pos. 8
Seq#:11; Xaa Pos. 10
Seq#:12; Xaa Pos. 8
Seq#:13; Xaa Pos. 8,10
Seq#:14; Xaa Pos. 10
Seq#:18; Xaa Pos. 1
Seq#:19; Xaa Pos. 1

Invalid Line Length:

The rules require that a line not exceed 72 characters in length. This includes spaces.

Seq#:1; Line(s) 9

VERIFICATION SUMMARY

DATE: 12/23/2002

PATENT APPLICATION: US/09/998,350

TIME: 14:13:24

Input Set : A:\PTO.VSK.txt

Output Set: N:\CRF4\12232002\I998350.raw

L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:57 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:129 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:162 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:182 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:188 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:348 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:380 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:441 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:474 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:513 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:567 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:641 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:677 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0